

SOUTH CENTRAL COAST: Agriculture, Water and Environmental Technologies Sector Profile

What Is Driving Growth?

The agriculture, water and environmental technologies sector is critical to the South Central Coast, generating billions of dollars each year in revenue.

The South Central Coast is one of the most fertile farming regions in the state and nation. Grapes, strawberries, broccoli, cauliflower and citrus are key crops.

The region's coastal location also has given rise to a new trend—the export of fruits and vegetables not only domestically, but overseas.

In recent years, the agriculture, water and environmental technologies sector has undergone a significant labor market shift due to an exacerbated shortage in agricultural workers.

This has resulted in the adoption of new technologies and increasingly mechanized processes on local farms. Many growers now have constructed large machine shops on their properties where they fabricate and repair mechanical field equipment.

This labor market shift represents a convergence across advanced manufacturing, agricultural production and environmental technologies. Demand for occupations related to the fabrication and repair of mechanized equipment is expected to rise.

Where Are Changes Occurring?

Increased mechanization also may be the result of minimum wage increases and new labor regulations affecting overtime earned by field workers. Meeting these new financial demands has proved challenging for some growers and producers in the region.

Other changes caused by new state requirements and regulations are resulting in an increased need for agricultural supervisors and safety trainers. For example, starting in 2017, pesticide handlers and field workers are required to undergo new pesticide safety training.

Looking ahead, there is the possibility that the regulation of more agricultural chemicals, such as the phasing out of methyl bromide for strawberry production, could lead to a need for more workers with specific state certifications and expertise in pesticide safety and training.

Meanwhile, another occupation in high demand regionally is ammonia refrigeration technicians who are needed to maintain and repair large produce cooling units on farms.

Regional program development and expansion may be required as the following trends gain even more traction within the South Central Coast economic landscape: mechanized agriculture, pesticide safety, soil science and ammonia refrigeration.

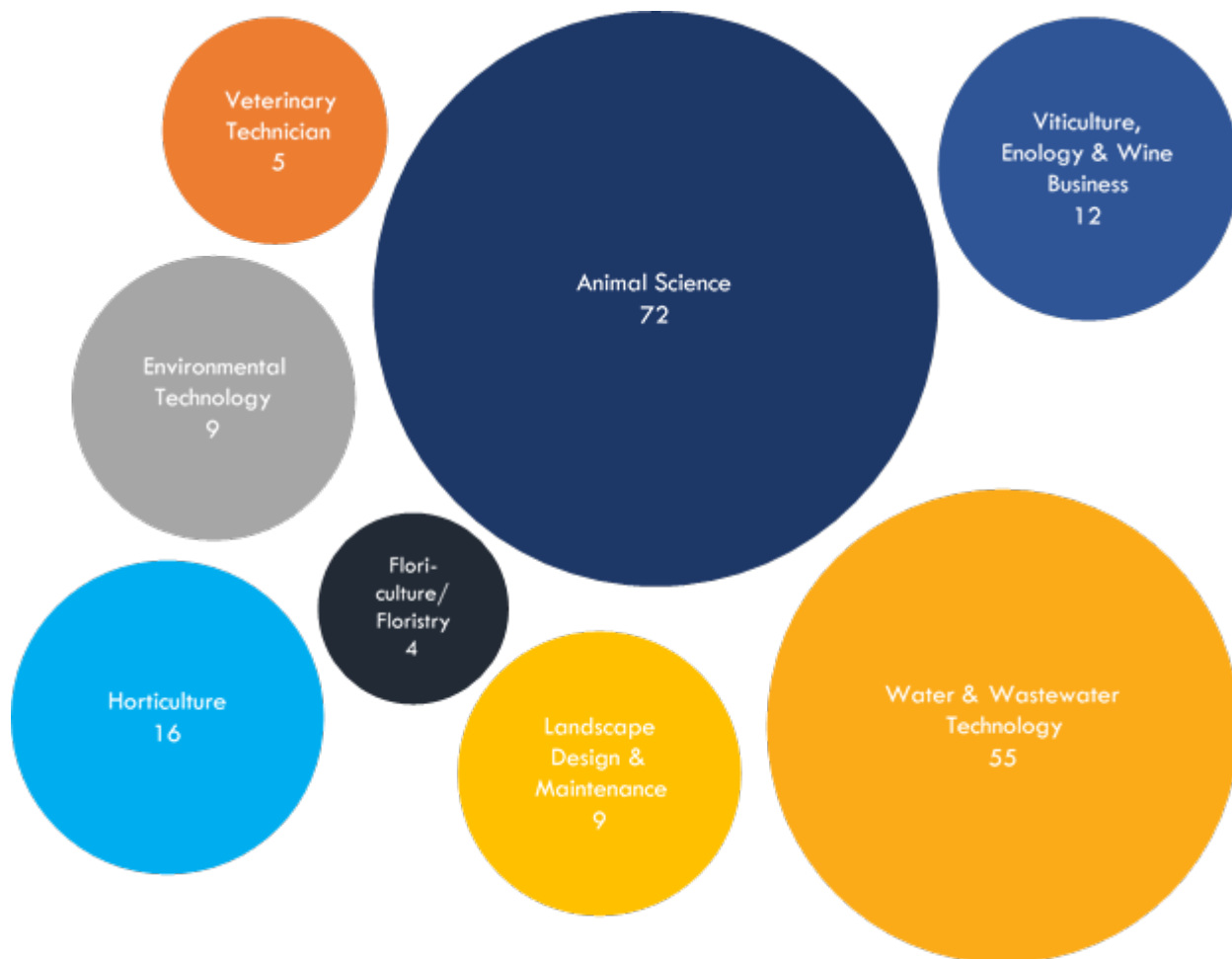
SOUTH CENTRAL COAST

Community colleges in San Luis Obispo, Santa Barbara, Ventura and northern Los Angeles counties:

- Allan Hancock College
- Antelope Valley College
- College of the Canyons
- Cuesta College
- Moorpark College
- Oxnard College
- Santa Barbara City College
- Ventura College

Community College Programs

AVERAGE ANNUAL COMPLETIONS IN THE SOUTH CENTRAL COAST



SOUTH CENTRAL COAST COMMUNITY COLLEGE PROGRAM COMPLETIONS

TOP6 Code	TOP6 Title	3-Yr Average 2013-16
010200	Animal Science	72
095800	Water and Wastewater Technology	55
010900	Horticulture	16
010400	Viticulture, Enology and Wine Business	12
010910	Landscape Design and Maintenance	9
030300	Environmental Technology	9
010210	Veterinary Technician (Licensed)	5
010920	Floriculture/Floristry	4

Community College Supply

There are eight colleges in the South Central Coast region offering programs related to agriculture, water and environmental technologies.

Over the past three years, on average, these colleges have conferred 180 awards annually, with the most awards concentrated at Moorpark College.

Ventura College and Allan Hancock College also led the region in the average number of awards conferred.

COMMUNITY COLLEGE AWARDS, THREE-YEAR AVERAGE

College	Awards 2013-14	Awards 2014-15	Awards 2015-16	3-Yr Average 2013-16
Allan Hancock	12	37	29	26
Antelope Valley	10	16	14	13
Canyons	18	17	19	18
Cuesta	-	-	2	2
Moorpark	69	78	70	72
Oxnard	-	-	5	5
Santa Barbara	7	9	14	10
Ventura	34	35	44	38
TOTAL	150	192	197	180

Job Openings & Wages

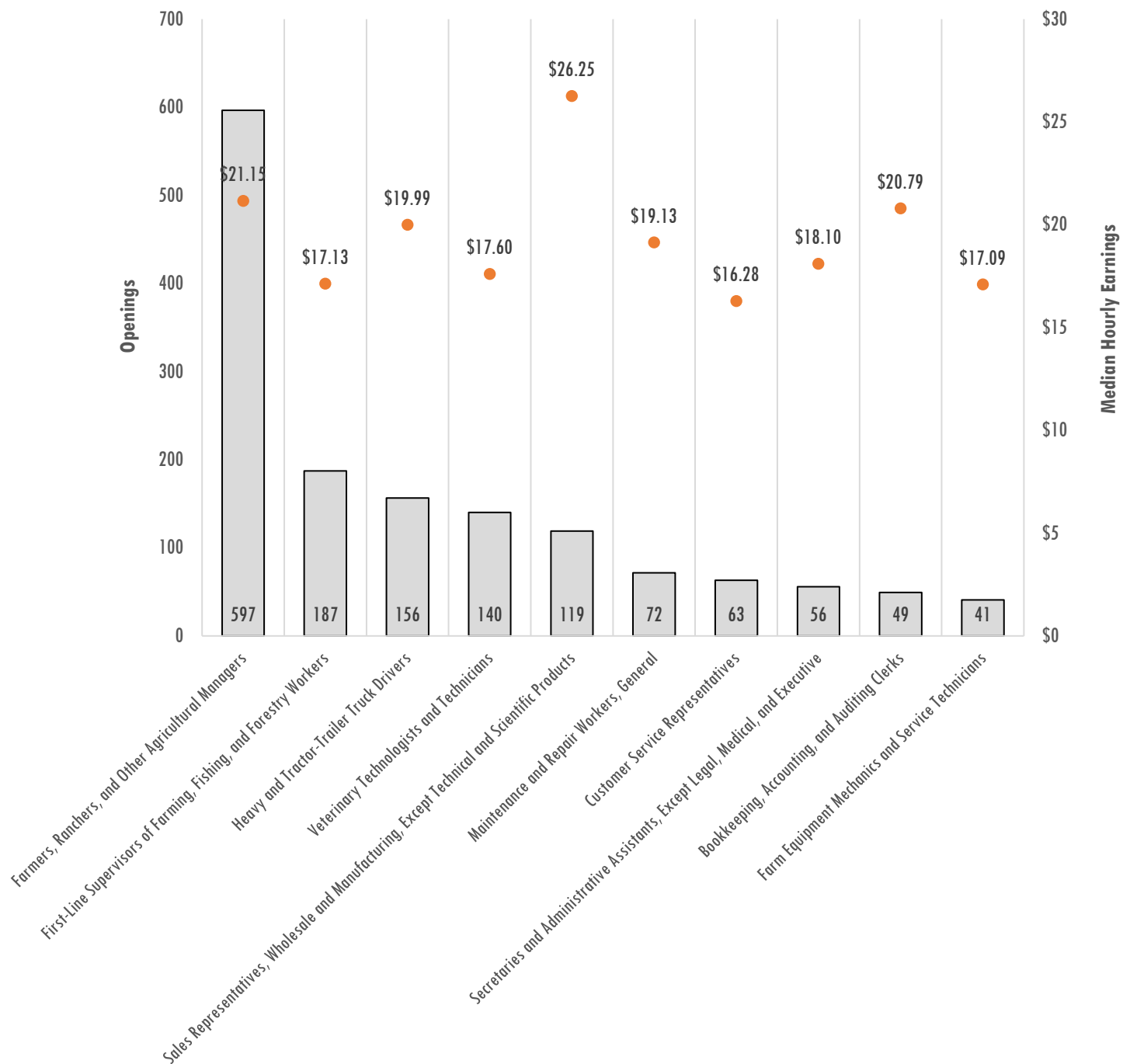
Middle-skill jobs are those that require an education level below a bachelor's degree. The top three middle-skill occupations related to agriculture, water and environmental technologies with the greatest number of annual job openings in the region are:

- Farmers, ranchers and other agricultural managers (597 openings);
- First-line supervisors of farming, fishing and forestry workers (187); and
- Heavy and tractor-trailer truck drivers (156).

The highest wages are earned by:

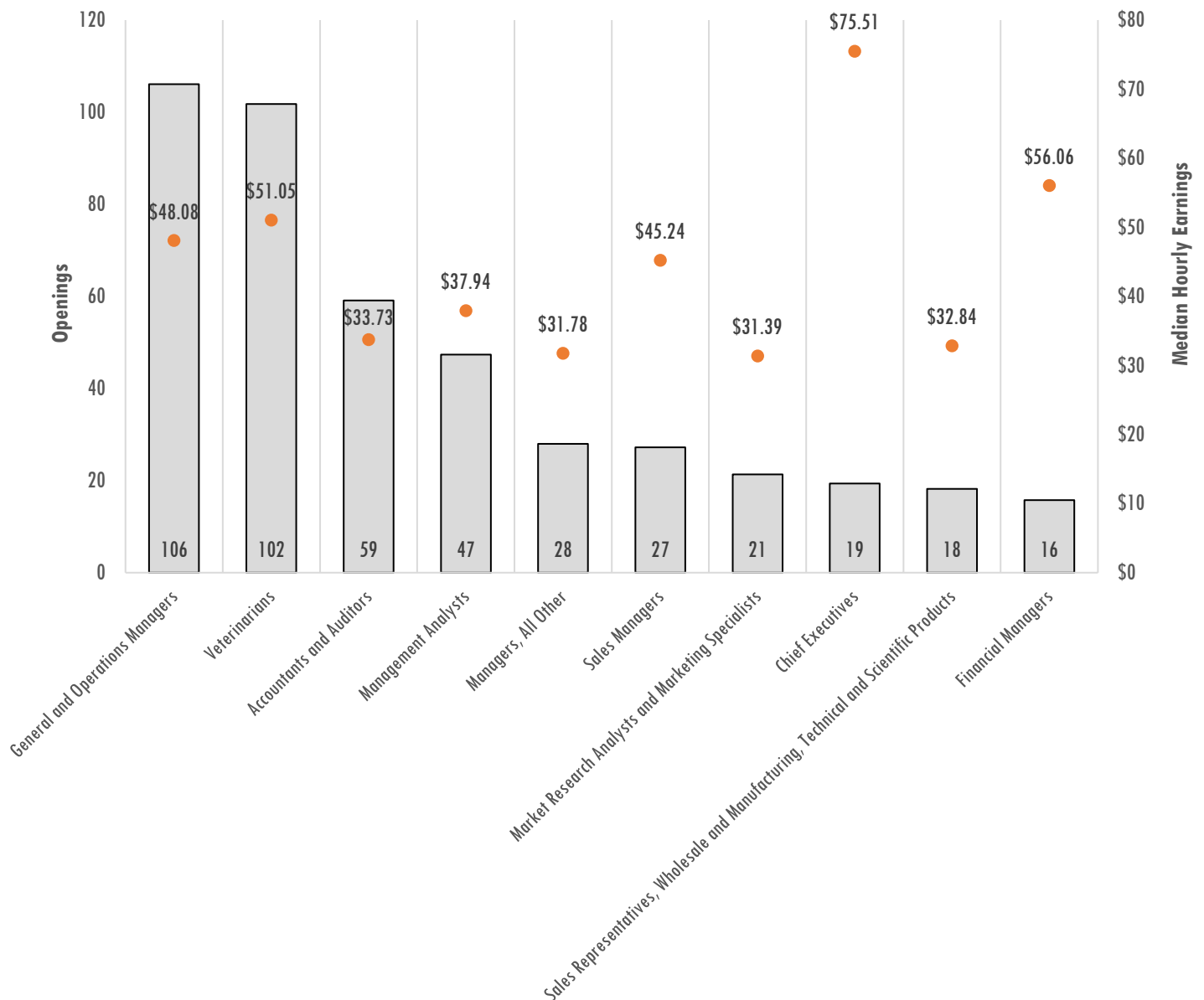
- Sales representatives, wholesale and manufacturing, except technical and scientific products, \$26.25/hour;
- Farmers, ranchers and other agricultural managers, \$21.15/hour; and
- Bookkeeping, accounting and auditing clerks, \$20.79.

MIDDLE-SKILL OCCUPATIONS IN AGRICULTURE, WATER & ENVIRONMENTAL TECHNOLOGIES



Above-middle-skill occupations, those which require a bachelor's degree or higher, also were analyzed. The top three occupations in the region's agriculture, water and environmental technologies sector with the most annual openings are: general and operations managers (106 openings); veterinarians (102); and accountants and auditors (59).

Wages for above-middle-skill occupations are considerably higher than the middle-skill occupations shown in the previous chart. The highest wages shown in the group below are earned by chief executives, \$75.51/hour, followed by financial managers, \$56.06/hour.

ABOVE-MIDDLE-SKILL OCCUPATIONS IN AGRICULTURE, WATER & ENVIRONMENTAL TECHNOLOGIES**About this report**

This report is part of an initiative of the California Community Colleges' *Doing What MATTERS for Jobs and the Economy* framework, which invests in California's economic growth and global competitiveness through industry-specific partnerships, education, training and services that contribute to a highly skilled and productive workforce. Visit doingwhatmatters.cccco.edu to learn more.

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Data sources: Economic Modeling Specialists International (EMSI), Center of Excellence Supply and Demand Tables, Center of Excellence TOP-CIP-SOC Crosswalk, Chancellor's Office MIS System

